

ARGIR, I., dotsent

Visual aids for the maintenance of motor vehicles. Avt.
transp. 38 no.9:61 S '60. (MIRA 13:9)
(Motor vehicles--Maintenance and repair)

ARGIROPULO, N. A.

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Box trap used as protection against thieving bees. Pchelovodstvo No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 195²~~3~~, Uncl.

ZHIVKOV, E.; GOLEMINOVA, R.; ARGIROV, D.; PANDOV, Kh.

Effect of quinine and aureomycin on the cytological picture of the anterior chamber in rabbits inoculated with herpes simplex. Nauch tr. vissh. med. inst. Sofia 42 no.1:207-215 '63.

1. Predstavana ot dots. E. Zhivkov.

(CHLORTETRACYCLINE) (QUININE)
(PHARMACOLOGY) (KERATITIS, DENDRITIC)
(PATHOLOGY) (AQUEOUS HUMOR)

ZHIVKOV, M.S.;ARGIROV, D.K.

Effect of adrenalin on ocular pressure in sympathectomized animals.
Khirurgia, Sofia 6 no.4:228-233 1953. (GML 25:1)

1. Senior Assistants. 2. Eye Clinic (Head -- Docent D. Danailov), V.
Chervenkov Medical Academy, Sofia.

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00010201

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ARGIROV, D., st. asistent

Experimental studies on anti-allergic effect of sulfur in colloidal solution in cod liver oil. Khirurgia 7 no.2:94-100 1954.

1. Meditsinska akademia V.Chervenkov, Sofia. Ochna klinika.
Direktor: dots. D.Danilov.

(ALLERGY, experimental,

*eff. of sulfur in colloidal solution in cod liver oil)

(SULFUR, effects,

*on exper. allergy, in colloidal solution in cod liver oil)

(FISH LIVER OILS, effects,

*cod liver oil, on exper. allergy, with sulfur in colloidal solution)

ARGIROV, D.

ZHIVKOV, M.; ARGIROV, D.; BANKOV, P.

Experimental studies on the effect of anesthesia on ocular pressure in rabbits with special reference to parabiosis. Khirurgia, Sofia 7 no. 10:596-602 1954.

1. Meditsinska Akademiia V.Chervenkov, Sofia. Katedra po Oftalmologiya. Zaveshdashch katedrata: dots. D.Danilov.

(EYE,

tension, eff. of anesth. in rabbits)

(ANESTHESIA, effects,

on eye tension in rabbits)

ARGIROV, D.

Case of ophthalmia lenta. Khirurgiia, Sofia 9 no.5:463-464
1956.

(BEHCET SYNDROME, case reports,
(Bul))

ARGIROV, D.

Non-specific desensibilization therapy of scrofulous
keratoconjunctivitis with colloidal sulfur solution in fish oil.
Khirurgiia, Sofia 9 no.6:510-517 1956.

1. Vissh meditsinski institut--Sofia; Katedra po ochni bolesti.
Zav. katedrata: dots. D. Daniilov.

(TUBERCULOSIS, OCULAR, therapy,

sulfur in fish liver oil in scrofulous

keratoconjunctivitis (Bul))

(SULFUR, therapeutic use,

scrofulous keratoconjunctivitis, in fish liver oil (Bul))

(FISH LIVER OIL, therapeutic use,

scrofulous keratoconjunctivitis, sulfur in fish oil (Bul))

ARGIROV, D.

Case of traumatic peripheral ophthalmoplegia with abnormal regeneration of the involved nerves. Khirurgiia, Sofia 10 no.12:1118-1120 1957.

1. (Iz klinika po ochki bolesti pri VMI--Sofia)
(MUSCLES, OCULOMOTOR, paralysis,
abnorm. regen. of nerves (Bul))

ARGIROV, D.; STOIANOV, Sl.

Experience in establishment of the tuberculous etiology of eye diseases by the Middlebrook-Dubos hemagglutination reaction. Khirurgiia, Sofia 14 no.9:825-829 '61.

1. Vissh meditsinski institut, Sofia. Katedra po ochni bolesti. Zav. katedrata: dots. E. Zhivkov.

(TUBERCULOSIS OCULAR immunology) (HEMAGGLUTINATION)

ARGIROV, Ml. D.

Metabolic changes during the irradiation of the organism with various doses of roentgen rays. Nauch. tr. vissh. med. inst. Sofia 39 no.7: 177-186 '60.

1. Predstavena ot prof. Z. Mitsov, rukovoditel na Katedra "22".

(RADIATION INJURY metab)

ARGIROV, Ml. D.

Nervous activity changes during the course of eating with special reference to the development of a protective nutritional scheme in acute radiation sickness based on physiological principles. Nauch. tr. vissh. med. inst. Sofia 39 no.7:157-168 '60.

1. Predstavena ot prof. Z. Mitsov, rukovoditel na Katedra "22".

(RADIATION INJURY nutrition & diets)
(NERVOUS SYSTEM physiol)

ARGIROVA, D., arkh.; TRAIKOVA, M., arkh.

The Khaskovo and Asenovgrad substations. Tekh delo 467:1 9 Mr 163.

ARGIROVA, T.

Collective regular points for families of functions. Doklady BAN
17 no.4:343-344 '64.

1. Vorgelegt von korr. Mitglied der Akademie L. Ilieff [Iliev, L.].

ARGIROVA, T. (Belgariya)

Theorem on the covering for quasi-conformal mappings on a plane
and in a space. Usp. mat. nauk 20 no.12:181-184 Ja-F '65.

(MIRA 18:4)

ARGIROVA, Tatiana; GENCHEV, Todor

On certain properties of the series of Jacobi polynomials.
Godishnik fiz 55 no.1:199-204 '60/'61 (publ. '62)

ARGIROVIC, M.		B 66	
SA		8	
621.396.11X			
4273. Practical methods for calculation of the propagation of electromagnetic ground waves. M. Argirovic, Elektrotek. Vestn., 18 (No. 5-6) 117-23 (1950) In Serbian.			
In most calculations of electromagnetic ground waves the range of the transmitter has to be determined for a given field value or field field relations. In such cases the Sommerfeld-Van der Pol formula cannot be used in its original form. This formula in its explicit form for the range is a complete cubic equation which can be solved on a logarithmic slide-rule if it is expressed as a trinomial. For approximate calculation the equation has been transformed for three boundary conditions and a max. relative error of 12% was found. Curves of propagation according to K. A. Norton are given in nomogram form. Numerical examples illustrate the method calculation. A.			
ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION			

ARGIROVIC, H.

ARGIROVIC, M.

621.396.11 : 538.366.2

1337. Propagation of electromagnetic waves over an inhomogeneous soil. M. ARGIROVIC. *Elektroteh. Vestn.*, 19, 225-31 (No. 8-9, 1951) In Croatian.

A new analytical method of calculating the propagation of ground waves over an inhomogeneous soil. Based on the formula for the numerical distance in the field equation it is proved that the total numerical distance p equals the sum of the particular distances. This is true up to the point where the total numerical distance exceeds its critical value which is $p_{kr} = \pm 2.74$. In this case negative roots for the numerical distance resulting from the quadratic equation defining p must be taken into account. By means of two examples of the calculation of theoretical curves for field attenuation, the causes for the irregular shape of these curves (i.e. the field intensification with distance) at the propagation over sea and shore are shown, which irregularity could not be fully explained hitherto. The formula for the equivalent conductivity enables a simple method of measuring the single values of the conductivity of inhomogeneous soils to be used in the case if $p < p_{kr}$. λ .

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E.F.P.
radio (Trans.)

ARGIROVIC, M.

"The application of topograms in the calculus of meshworks." p. 3 (ELEKTROTEHNIŠKI VESTNIK, Vol. 21, no. 1/2, 1953, Ljubljana.)

SO: Monthly List of East European Accessions, Vol. 2, #3, Library of Congress
August, 1953, Uncl.

ARGIROVIC, M.

Effect of variations in the conductivity of soil on induced charges in telecommunication lines. p. 1.

TELEKOMUNIKACIJE, Beograd, Vol 3, No. 4, Oct., 1954

SO: EEAL, Vol 5, No. 7, July, 1956

ARGIROVIC, M.

Absorption. p. 7., TELEKOMUNIKACIJE, Vol. 4, No. 3, July, 1955.
Belgrad.

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, Dec. 1955.

ARGIROVIC, M.

ARGIROVIC, M. Extension of Sabine's formula; atmospheric influence on
acoustic constants. p. 1

Vol. 5, no. 3, Aug. 1956

TELEKOMUNIKACIJE

TECHNOLOGY

Beograd

So: East European Accession, Vol. 6, no. 3, March 1957

ARGIROVIC, M.

A simple nomogram for calculating the impedance in transmission lines. p. 8.
(Telekomunikacije, Vol. 5, no. 4, October 1956. Beograd, Yugoslavia)

SO: Monthly List of East European Accessions. (EEAL) LC. Vol. 6, No. 7,
July 1957. Uncl.

ARGIROVIC, M.

Impedance of overhead lines and cables in reference to the earth. p. 1161.

(TEHNIKA. Vol. 12, No. 7, 1957, Beograd, Yugoslavia)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No 10, October 1957. Uncl.

20911

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9.9000 (also 1036, 1041, 1103)

AUTHOR: Argirović, Milenko, Engineer (Belgrade)

TITLE: Absorption, refraction and reflection in heterogeneous media

PERIODICAL: Tehnika, no. 1, 1960, 97-100

TEXT: The study of absorption, refraction and reflection in heterogeneous media is of particular significance in research on the propagation of electromagnetic waves. The article reviews these coefficients in the series and parallel connection of electric constants of a heterogeneous medium, as well as some factors which affect their changes in the course of time. Strictly speaking, homogenous media through which electromagnetic waves propagate do not exist in nature. In their propagation over the earth's gaseous belt, electromagnetic waves practically always encounter more or less heterogeneous media. For the purpose of simplifying the calculation, the heterogeneous nature of the medium in question is dis-
Card 1/16

20911

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/301

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regarded. The author's aim is to show that the concept of equivalent constants, coefficients and factors can be applied to heterogeneous media which will simplify considerably the calculations and allow a more precise consideration of main factors which affect the propagation of electromagnetic waves. The author cites L. Bloch (Ref. 1: Précis d'électricité théorique (Essay on Theoretical Electricity), Gauthier - Villars, Paris 1935) to show that for a homogeneous conductivity medium σ , dielectric constant ϵ , magnetic permeability μ , and frequency f , characterized by complex dielectric constant (in ESJ)

$$\epsilon_c = \epsilon - j^2 \sigma / f \quad (1)$$

the absorption coefficient is

$$\alpha^2 = \frac{\mu}{2} (\sqrt{\epsilon^2 + 4\sigma^2 / f^2} - \epsilon) \quad (2)$$

the absorption at distance d

$$a = \alpha d \quad (3)$$

Card 2/16

20911

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

The refractive index

$$n^2 = \frac{\mu}{2} (\sqrt{e^2 + 4\sigma^2/\mu^2} + e) \quad (4)$$

and the coefficient of reflection, i.e. the relation between the reflected and the incident surface at normal incidence

$$r = \frac{(n - \mu)^2 + \alpha^2}{(n + \mu)^2 + \alpha^2} \quad (5)$$

or with the Fresnel equation for a smooth straight surface at incidence angle ψ (Ref. 2: G. Goudet, and J. Voge, Rayonnement et propagation des ondes électromagnétiques de courte longueur d'onde (Range and Propagation of short electromagnetic waves), La revue d'optique, Paris, 1948)

$$r = \rho \exp i\Phi = \frac{m \sin \psi - \sqrt{\epsilon_c - \cos^2 \psi}}{m \sin \psi + \sqrt{\epsilon_c - \cos^2 \psi}} \quad (6)$$

Card 3/16

20911

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

where $m = 1$ for horizontal polarization and $m = \epsilon_c$ for vertical polarization. The relations between α and n are (Ref. 1: Op.cit.)

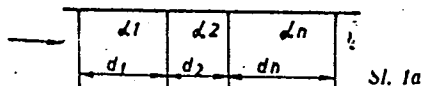
$$n^2 = \alpha^2 + \mu \epsilon \quad (7)$$

$$\alpha^2 = n^2 - \mu \epsilon \quad (8)$$

$$n \alpha = \frac{\mu \sigma}{f} \quad (9)$$

In a heterogeneous medium with different conductivities $\sigma_1, \sigma_2, \dots, \sigma_n$, dielectric constants $\epsilon_1, \epsilon_2, \dots, \epsilon_n$ (taking $\mu = 1$) with corresponding absorption coefficients $\alpha_1, \alpha_2, \dots, \alpha_n$, at distances $d_1, d_2, \dots, d_n$, with $d = d_1 + d_2 + \dots + d_n$ and designating with index "e" the equivalent coefficients the author cites his own work (Ref. 3: Ap-sorpcija (Absorption), Telekomunikacije, br. 3, juli 1955) to show a series connection of absorption (Fig. 1a)

Fig. 1a.



Card 4/16

20911

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

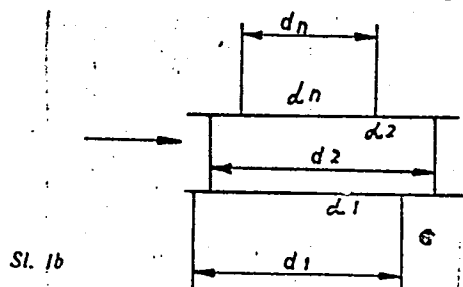
$$\alpha_s d = \alpha_1 d_1 + \alpha_2 d_2 + \dots + \alpha_n d_n = \sum_n \alpha_n d_n \quad (10)$$

or

$$a_s = a_1 + a_2 + \dots + a_n = \sum_n a_n \quad (11)$$

and at parallel connection of absorptions (Fig. 1b)

Fig. 1b.



Card 5/16

20911

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

we have

$$\frac{1}{\alpha_e d} = \frac{1}{\alpha_1 d_1} + \frac{1}{\alpha_2 d_2} + \dots + \frac{1}{\alpha_n d_n} - \sum_n \frac{1}{\alpha_n d_n} \quad (12)$$

or

$$\frac{1}{\alpha_e} = \frac{1}{\alpha_1} + \frac{1}{\alpha_2} + \dots + \frac{1}{\alpha_n} = \sum_n \frac{1}{\alpha_n} \quad (13)$$

with

$$\alpha_e^2 = \frac{1}{2} (\sqrt{\epsilon_e^2 + 4 \sigma_e^2 / l^2} - \epsilon_e) \quad (14)$$

Absorption on the basis of Eq. (9) will be

$$a = \alpha d = \frac{\sigma d}{l} \quad (15)$$

On the other hand according to the Descartes Law for the different Card 6/16

Absorption, refraction and ...

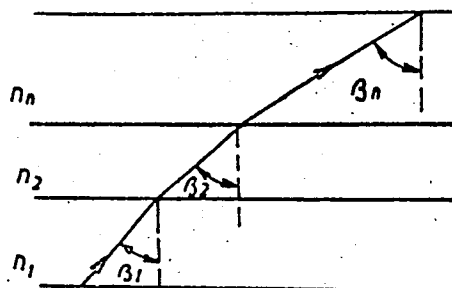
20911
Y/001/60/000/001/001/001
D251/D301

refractive indices $n_1, n_2 \dots n_n$:

$$n_1 \sin \beta_1 = n_2 \sin \beta_2 = \dots = n_n \sin \beta_n = n_e \sin \beta_e. \quad (16)$$

For different refractive indices Eq. (15) gives at series connection of refractive indices (Fig. 2a)

Fig. 2a.



Sl. 2a

Card 7/16

20911

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

$$\frac{\sigma_e d}{n_e} = \frac{\sigma_1 d_1}{n_1} + \frac{\sigma_2 d_2}{n_2} + \dots + \frac{\sigma_n d_n}{n_n} - \sum_n \frac{\sigma_n d_n}{n_n} \quad (17)$$

and with Eq. (16) the author obtains

$$\sigma_e d \sin \beta_e = \sigma_1 d_1 \sin \beta_1 + \sigma_2 d_2 \sin \beta_2 + \dots + \sigma_n d_n \sin \beta_n - \sum_n \sigma_n d_n \sin \beta_n \quad (18)$$

At parallel connection he has similarly (Fig. 2b)

$$\frac{n_e}{\sigma_e d} = \frac{n_1}{\sigma_1 d_1} + \frac{n_2}{\sigma_2 d_2} + \dots + \frac{n_n}{\sigma_n d_n} - \sum_n \frac{n_n}{\sigma_n d_n} \quad (19)$$

and

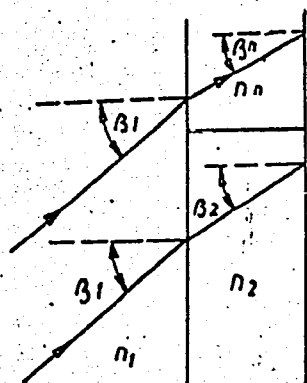
$$\frac{1}{\sigma_e d \sin \beta_e} = \frac{1}{\sigma_1 d_1 \sin \beta_1} + \frac{1}{\sigma_2 d_2 \sin \beta_2} + \dots + \frac{1}{\sigma_n d_n \sin \beta_n} - \sum_n \frac{1}{\sigma_n d_n \sin \beta_n} \quad (20)$$

Card 8/16

Absorption, refraction and ...

Fig. 2b.

Sl. 2b



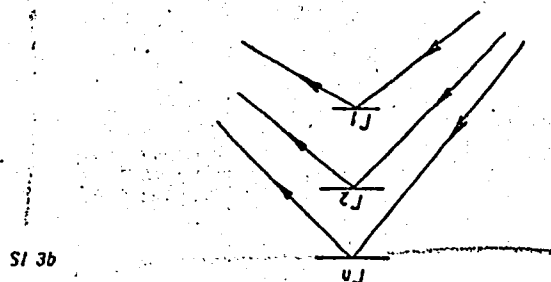
From the Eqs. (17) or (19) the author determines n_e and by means of (18) or (20) β_e . On the basis of Eq. (6) in the case of a se-
Card 9/16.

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

ries connection of the coefficient of reflection (Fig. 3b)

Fig. 3b



the following can be expressed:

$$r_e = \rho_e e^{j\Phi_e} = \rho_1 \cdot \rho_2 \dots \rho_n e^{j(\Phi_1 + \Phi_2 + \dots + \Phi_n)} = \prod_n \rho_n e^{j \sum_n \Phi_n} \quad (21)$$

Card 10/16

20911

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

or also

$$r_e = r_1 \cdot r_2 \dots + r_n = \prod r_n \quad (22)$$

and at parallel connection (Fig. 3b)

$$r_e^2 = r_1^2 + r_2^2 + \dots + r_n^2 = \sum r_n^2 \quad (23)$$

and

$$\left| \begin{aligned} & \rho_e^2 e^{j2\Phi_e} = \rho_1^2 e^{j2\Phi_1} + \rho_2^2 e^{j2\Phi_2} + \dots + \\ & + \rho_n^2 e^{j2\Phi_n} = \sum \rho_n^2 e^{j2\Phi_n} \end{aligned} \right. \quad (24)$$

Similarly, for the homogenous medium the author develops in the case of a non-homogenous medium, the equivalent complex dielectric constant

$$\epsilon_{ce} = \epsilon_e - j^{2\sigma_e/f} \quad (25)$$

equivalent coefficient of absorption

Card 11/16

20911

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

f

$$\alpha_e^2 = \frac{1}{2} (\sqrt{s_e^2 + 4 \alpha_e^2 / l^2} - s_e) \quad (26) \quad (26)$$

equivalent indice of refraction

$$n_e^2 = \frac{1}{2} (\sqrt{s_e^2 + 4 \alpha_e^2 / l^2} + s_e) \quad (27) \quad (27)$$

Similarly to the Eq. (7), (8) and (9)

$$\left. \begin{aligned} n_e^2 &= \alpha_e^2 + s_e \\ \alpha_e^2 &= n_e^2 - s_e \\ n_e \alpha_e &= \alpha_e / l \end{aligned} \right\} \quad (28) \quad (28)$$

The coefficient of reflection is

$$r_e = \frac{(n_e - 1)^2 + \alpha_e^2}{(n_e + 1)^2 + \alpha_e^2} \quad (29) \quad (29)$$

Card 12/16

Absorption, refraction and ...

20911
Y/001/60/000/001/001/001
D251/D301

or

$$r_e = \rho_e j^{\frac{1}{2}} = \frac{m \sin \psi_e - \sqrt{\epsilon_{ee} - \cos^2 \psi_e}}{m \sin \psi_e + \sqrt{\epsilon_{ee} - \cos^2 \psi_e}} \quad (30) \quad (30)$$

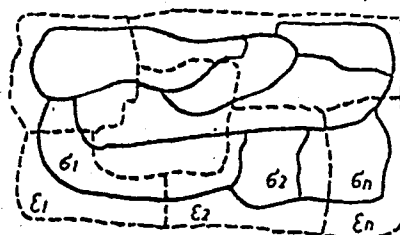
The use of equivalent coefficients permits the author to use the same equations for homogenous and non-homogenous media. From these, it may be seen that d_e , n_e and r_e change not only with the frequency but also with the total distance d and the equivalent angle of incidence ψ_e , in relation to the distribution of σ_n and ϵ_n at individual d_n and ψ_n . Observing the most common type of distribution of electric constants σ and ϵ in any type of heterogenous medium, the distribution of σ and ϵ in a vertical plane (Fig. 4) can be presented with various irregular planes of the same value σ (solid lines) and ϵ (dashed lines). The appearance of the σ and ϵ distribution will be similar if viewed in a horizontal plane. Knowing the distribution and the quantities σ and ϵ in space, while

Card 13/16

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

Fig. 4



Sl. 4

performing calculations, one can consider more precisely those quantities σ and ϵ which are in the path of electromagnetic waves. It is known that conductivity σ and the dielectric constant ϵ can change in the course of time under the influence of various factors, such as temperature T , moisture w , pressure p , and electron density N . Under the influence of the changes in these factors,

Card 14/16

20911

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

the σ and ϵ will change and the equivalent σ_e and ϵ_e will correspond to the equivalent temperature T_e , moisture w_e , pressure p_e , electron density N_e , etc. Instead of an unchanged appearance of σ and ϵ (Fig. 4) there will be a variable picture of their distribution and their value. The variations of the constants will depend on the changes of the above-mentioned factors. Similarly to the transformation of the complex high-tension electric network with distributed constants into a section which contains only two points, a transformation of the heterogeneous medium can also be made into a simple section of the homogenous medium of equivalent electric constants. Equivalent orbiting of air and equivalent electric constants fully determine the corresponding heterogeneous medium at a given frequency. This method permits, in addition to simple and more accurate calculations, also a choice of optimum conditions for individual cases of electromagnetic wave propagation. There are 7 figures and 6 non-Soviet-bloc references. The

Card 15/16

20911

Absorption, refraction and ...

Y/001/60/000/001/001/001
D251/D301

reference to English-language publication reads as follows: D.
Kerr, Propagation of short radio waves. McGraw-Hill, New York,
1951. [Abstractor's note: This is essentially a complete transla-
tion].

SUBMITTED: July 25, 1959

Card 16/16

28893
Y/001/61/000/007/001/002
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9.9822

AUTHOR: Argirović, Milenko, Engineer

TITLE: Propagation of ultra-short waves in the troposphere

PERIODICAL: Tehnika, no. 7, 1960, 1247-1253

TEXT: The author puts forward a hypothesis on propagation, based on material conditions of the medium together with the theory of equivalent parameters as factors of propagation, i.e. resting on absorption, refraction, and reflective diffraction. An expression for the power of the receiving signal is obtained, from which the method for measuring the refractive index of the troposphere follows plus explanations of other anomalies, phenomena, etc. In scattering propagations with directional emission from T, and receiving, by R (Fig. 1) at distance d (in km) with earth's radius R, or $R' = 4/3 R$,

$$\theta = \alpha_t + \sigma_r + \beta \quad (5)$$

Card 1/12

Propagation of ultra-short ...

28893
Y/001/61/000/007/001/002
D208/D303

$$\beta = \frac{d}{148} \quad (4)$$

are valid. For homogeneous gaseous medium,

$$\alpha = \sqrt{\frac{\mu}{2} \left(\sqrt{\epsilon^2 + \frac{3,25 \cdot 10^8 \sigma^2}{f^2}} - \epsilon \right)} \quad (5)$$

$$n = \sqrt{\frac{\mu}{2} \left(\sqrt{\epsilon^2 + \frac{3,25 \cdot 10^8 \sigma^2}{f^2}} + \epsilon \right)} \quad (6)$$

$$|\epsilon_c| = \sqrt{\epsilon^2 + \frac{3,25 \cdot 10^8 \sigma^2}{f^2}} \quad (7a)$$

Card 2/12

Propagation of ultra-short ...

28893
Y/001/61/000/007/001/002
D208/D303

follow, where: μ is magnetic permeability, ϵ dielectric constant, σ conductivity, f is frequency in Mcs., α is the absorption coefficient, n the refractive index, and ϵ_c complex dielectric constant, On the basis of Debye's equation, which links n with air temperature T (in $^{\circ}\text{K}$)

$$n - 1 = \frac{77,6 \cdot 10^{-6}}{T} p_a + \frac{4810 pze}{f} \quad (8)$$

is obtained, where p_a is the atmospheric pressure in millibars, p_z - saturated vapor pressure in millibars, e - relative humidity. Using a modified refractive index N

$$N = (n - 1) 10^6 \quad (9)$$

which is relatively small, the approximate

$$-1 = 2N10^{-6} = \frac{155,2 \cdot 10^{-6}}{T} p_a + \frac{4810 pze}{T} \quad (10)$$

Card 3/12

Propagation of ultra-short ...

28893
Y/001/61/000/007/001/002
D208/D303

results. There are further factors such as density, height, suspended droplets and particles which all affect the incoming signal. In the non-homogeneous troposphere, propagation follows other routes. By considering equivalent absorptions for small height changes in the direction of rays

$$\alpha = 1,4 \cdot 10^{-3} \sqrt{N} = 1,4 \cdot 10^{-3} \sqrt{\Delta n} \quad (18a)$$

$$\Delta n = \left[\frac{(\sqrt{N_{e2}} - \sqrt{N_{e1}}) H_1}{h} \right]^2 \quad (19)$$

result, (h - height difference, or thickness of reflective layer, N_{e1} , N_{e2} are values of N at heights 1 and 2) where Δn is the true gradient of refraction index for unit length. Lines of constant Δn on the H-h graph can be set up as seen in Fig. 5, and these fluctuations in Δn , as seen, explain large fluctuations in the short-wave signals sometimes obtained. The propagated

Card 4/12

28893

Propagation of ultra-short ...

Y/001/61/000/007/001/002
D208/D303

wave is thus refracted due to its inhomogeneous refractive index in the layer, but also there are diffractions of Bragg's type, i.e. by reflection, given by the Bragg expression, and due to the presence of the suspended particles in tripospheric layer. Energy is also lost due to absorption a ,

$$a = \frac{\sqrt{A} n}{\theta} \quad (21)$$

where θ represents Bragg's angle. The damping factor $A = e^{-a} = P_a/P_t$ - ratio of emitted powers through the medium and vacuum respectively. Reflection coefficient r is the ratio of the reflected and incident electric fields given by

$$r = \frac{\sin \frac{\theta}{2} - \sqrt{\epsilon_c^2 - 1 + \sin^2 \frac{\theta}{2}}}{\sin \frac{\theta}{2} + \sqrt{\epsilon_c^2 - 1 + \sin^2 \frac{\theta}{2}}}$$

Card 5/12

Propagation of ultra-short ...

28893
Y/001/61/000/007/001/002
D208/D303

and using Equations (18a) (21),

$$R = r^2 = \left(\frac{1 - \sqrt{1 + 5,3 \cdot 10^{-2} a^2}}{1 + \sqrt{1 + 5,3 \cdot 10^{-2} a^2}} \right)^2 \quad (23a)$$

results, Finally, the ratio of received and transmitted powers P_r , P_t is obtained in

$$\frac{P_r}{P_t} = \frac{5,7 \cdot 10^{-4} G_t G_r}{f^2 d^2} e^{-a \cdot R} \quad (24)$$

Fig. 8 shows dependence of $(e^{-a \cdot r})$ on a , and that of signal on the range. From the graph, the critical value of a is 2, when critical $\theta = \frac{(\Delta n)^{1/2}}{2}$, i.e. angle of crossing of beams for maximal power ratio. Equation (24) shows that if $e^{-a \cdot R}$ outweighs d^2

Card 6/12

Propagation of ultra-short ...

28893
Y/001/61/000/007/001/002
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then signal strength still grows with range which can happen if sudden falls in Δn occur due to inversions. In summer strength is higher due to higher T and lower Δn and a , and the same is valid for the fact that strengths are maximal during 10 to 16.00 hrs. in daytime. During rains, equivalent $\Delta \epsilon$ rises causing a rise in Δn and a , so the signal fades; during snowfalls, fading increases as temperature lowering increases a . Also the refractive index of the troposphere can be measured from 24: rewriting one obtains

$$P_r/P_t = k \cdot \varphi(a) \quad (27)$$

$$\varphi(a) = e^{-a} \cdot R = k_1 P_r \quad (28)$$

where k_1 is known, P_r can be measured and so a is found from Fig. 8; θ is known from

$$\alpha_1 + \alpha_2 = \theta - \beta \quad (26)$$

Card 7/12

28893

Y/001/61/000/007/001/002
D208/D303

Propagation of ultra-short ...

and to get the a range, one repeats the measurement of P_r at another θ and a . If $\Delta n = \text{const.}$, at height $2h$, $a \theta = a_1 \theta_1 = a_2 \theta_2$ etc., and Δn is obtained from Equation (21). Equation (24) has been checked by the recent experimental work and found to compare favorably. There are 10 figures and 23 references: 2 Soviet-bloc and 21 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: J. Feinstein, Gradient reflections from the atmosphere, Trans. IRE, Professional group on antennas and propagation, USA, Dec.1952, PGAP 4; H.Friis, A. Crawford, D. Hogg, A reflection theory for propagation beyond the horizon, Bell syst.techn.journ. USA, maj 1957, 38, no. 3; A. Crawford, D. Hogg, W. Kummer, Studies in tropospheric propagation beyond the horizon, Bell syst.techn.journ. USA, Sep.1959, 38, no. 5; H. Booker, W. Grodon, The role of stratospheric scattering in radiocommunication, Proc. IRE, USA, Sep.1957, 47,no.9.

Card 8/12

Propagation of ultra-short ...

28893
Y/001/61/000/007/001/002
D208/D303

ASSOCIATION: Uprava za radiosaoobraćaj, Beograd (Bureau for
Radio-communications, Belgrade)

SUBMITTED: December 7, 1960

Card 9/12

9.9821

9.9822

S/194/62/000/003/059/066
D271/D301

AUTHOR: Argirovič, Milenko

TITLE: Multi-beam tropospheric wave propagation

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
no. 3, 1962, abstract 3-7-45shch (Telekomunikacije,
1961, v. 10, no. 1, 1-5)

TEXT: Wave propagation over the mountain range peaks is studied. Non-homogeneous troposphere is considered which causes a complex wave type due to absorption, refraction and diffraction. Two beams appear above the range: One of them is tropospheric and the other is diffracted by the mountain ridge, sequentially with the beam reflected from earth. Formulas are derived for diffraction coefficients, for sequentially and parallel diffracted beams. At frequencies below 10 Mc/s both beams are parallel because of meteorological conditions. In practice, the tropospheric beam disappears. Constant phase formulas are derived for both beams. 4 references.

/ Abstracter's note: Complete translation. /

Card 1/1

ARGIROVIC, Milenko, ing.

Influence of the underground conductivity on the curved propagation
of telecommunication waves. Telekomunikacije 10 no.3:1-7 J1 '61,
(BEAI 10:9/10)

(Telecommunication)

Y/001/62/000/012/001/001
D294/D308

3.9000

AUTHOR: Argirović, Milenko, Engineer
TITLE: The application of radiowave propagation in various
branches of the economy
PERIODICAL: Tehnika, no. 12, 1962, 2325-2330

TEXT: The author suggests that the methods utilized in radio engineering for the measurement of electrical constants of ground could also be applied in telecommunications, geology and in the building and mining industries. A brief survey is given of mathematical expressions relating the complex permittivity and the conductivity of ground to the absorption of radiowave in the case of homogeneous as well as heterogeneous ground. These constants are determined not only by the composition of ground, but also by moisture, temperature and frequency. Methods of measurement of conductivity and permittivity are systematized: measurement of samples in laboratories; the four-sonde method for the measurement of conductivity; measurement of the inclination of the electric field of verti-

Card 1/2

The application of radiowave ...

Y/001/62/000/012/001/001
D294/D308

cal polarized wave; measurement of the attenuation of the ground wave; measurement of the attenuation of the electromagnetic field below ground surface; measurement of the phase shift of ground wave and measurement of the coefficient of reflection. Various factors influencing the conductivity of ground are discussed referring to the maps of ground conductivity in Yugoslavia, made for seven frequency-bands covering the range from 600 to 1500 kc/s. The advantages are emphasized of these maps not only in solving problems of radio broadcasting, radio communication and radiogoniometry but also in geology for the determination of mineral layers, in hydrology (research of underground waters), in telecommunications and power distribution (study of grounding, lightning protection, short-circuit currents, transmission line impedance, coupling of power and transmission lines etc). There is 1 table. ✓B

ASSOCIATION: Tehnička komisija Jugoslovenske radio-televizije,
Beograd (Technical Commission of the Yugoslav Radio-
Television, Belgrade)

SUBMITTED: May 17, 1962
Card 2/2

ARGIROVIC, Milenko, inz. (Beograd, Bircaninova 18)

Influence of ionospheric electric constants on various ways of propagation. Elektrotehnika Hrv 5 no.4:121-132 '62.

ARGIROVIC, Milenko, inz.

Maps of tropospheric constants of Yugoslavia. Telekomunikadije
11 no.3:1-6 J1 '62.

1. Savetnik Jugoslovenske radio-televizije, clan Redakcionog
odbora, "Telekomunikacije".

ARGIROVIC, Milenko, inz.

Use of axograms in the condensed representation of short-wave propagation. Telekomunikacije 11 no.4:1-6 0 '62.

1. Savetnik Jugoslovenske radio-televizije, član Redakcionog odbora, "Telekomunikacije".

ARGIROVIC, Milenko, inz. (Beograd, Bircaninova 18)

Influence of certain characteristic factors of the environment
on the propagation of ultrasound.. Tehnika Jug 17 no.10: Suppl.:
Elektrotehnika 11 no.10:1943-1949 0 '62.

1. Sekretar Tehničke komisije Jugoslovenske radio-televizije,
Beograd.

ARGIROVIC, Milenko, ins. (Beograd, Bircaninova 18)

Use of radio wave propagation in economic research. Tekhnika Jug
17 no.12:2325-2330 D '62.

1. Sekretar Tehnicke komisije Jugoslovenske radio-televizije,
Beograd.

ARGIROVIC, Milenko, inz. (Beograd, Bircaninova 18)

Influence of tropospheric characteristics on the radar equation.
Tehnika Jug:Suppl., Elektrotehnika 13 no.1:122-124 Ja. '63.

1. Sekretar Tehnicke komisije Jugoslovenske radio-televizije,
Beograd.

ARGIROVIC, Milenko, inz.

Certain cases of nonreciprocity of radio waves. Telekomunikacije
12 no.2:1-4 Mr '63.

1. Savetnik Jugoslovenske radio-televizije i član Redakcionog
odbora, "Telekomunikacije."

ARGIROVIC, Milenko, inz.

Factors influencing propagation over artificial earth satellites.
Telekomunikacije 12 no.1:12-18 Ja '63.

1. Savetnik Jugoslovenske radio-televizije, clan Redakcionog
odbora, "Telekomunikacije."

ARGIROVIC, Milenko, inz. (Beograd, Birsaninove 18)

Formalism in expressing various aspects of energy. Tehnika
Jug 19 no.5:813-817 My '64.

ARGIROVIC, Milenko, inz.

Hypotheses on the simplification of certain cases of
gain due to obstacles. Telekomunikacije 12 no.3:1-7
Je '63

1. Sekretar Tehnicke komisije Jugoslovenske radio-
televizije, clan Redakcionog odbora, "Telekomunikacije".

ARGIROVIC, Milenko, inz. (Beograd, Bircaninova 18)

Basic principles in computing radio wave propagation.
Tehnika Jug 18 no. 8: Supplement: Elektrotehnika
12 no. 8: 1520-1523 Ag '63.

1. Sekretar Tehnicke komisije Jugoslovenske radio-
televizije, Beograd.

ARGIROVIC, Milenko, inz.

Ionospheric medium of propagation, and simplified expressions
for computing its parameters. Telekomunikacije 13 no.1/2:1-7
Ja-Apr '64.

1. Secretary, Technical Commission of the Yugoslav Radio
and Television System.

ARGIROVIC, Milenko, dipl. inz. (Beograd, Bircaninova 18)

Universality of space symbolism and the triplet principle. Tehnika
Jug 19 no.6:998-1002 Je '64.

EFROS, L.S.; POLYAKOVA, R.P.; ARGITTI, M.G.

Derivatives of piazthiole and piazselenole. Part 7:
Monohydroxy derivatives. Zhur.ob.khim. 32 no.2:516-521
F '62. (MIRA 15:2)

1. Leningradskiy tekhnologicheskii institut imeni Lensova.
(Benzothiadiazole)
(Benzoselenadiazole)

ARGO, Yu.A.

Principal stability and deformation properties of asbestos cement
during cross bending and monoaxial tension and compression. Trudy
NIIAsbesttsementa no.16:56-69 '63. (MIRA 16:8)
(Asbestos cement---Testing) (Strains and stresses)

ARGO, Yu.A., inzh.

Deformation and stability properties of asbestos cement subject to
axial tension and lateral bending. Trudy NIIAsbestsmenta no.14:
71-79 '62. (MIRA 16:9)

ARGOSKIN, A. A.

At the plenary meeting of the conference of the Power Establishments of the Academies of Sciences of the Union Republics and of the Affiliates of the Academy of Science, USSR, the following paper was presented by Doctor of Technical Sciences A. A. Agroskin on "High-temperature working of fuels".

SO: Elektrichestvo, No. 9 Moscow, Sept. 1947 (U-5534)

SPIVAK, M.Ya.; ARGUDAYEVA, N.A.; NABIYEV, E.G.; CHISTOVICH, G.N.;
RIVLIN, M.I.; SEMENOV, M.Ya.; KRUGLIKOV, V.M.; SHAL'NEVA, A.M.;
TITROVA, A.I.; RAYKIS, B.N.; MILYAYEVA, Ye.N.; BRUDNAYA, E.I.;
GODINA, I.F.; VOL'FSON, G.I.; SOSONKO, S.M.; KOLESINSKAYA, L.A.;
VYSOTSKIY, B.V.; MALYKH, F.S.; MIROTVORTSEV, Yu.I.; SYCHEVSKIY,
P.T.; GOPACHENKO, I.M.; KARPITSKAYA, V.M.; FETISOVA, I.A.;
MARTYNYUK, Yu.V.; EMDINA, I.A.

Annotations. Zhur. mikrobiol., epid. i immun. 40 no.3:128-131
Mr '63. (MIRA 17:2)

1. Iz Kemerovskogo meditsinskogo instituta i Kemerovskoy
klinicheskoy bol'nitsy No.3 (for Spivak, Argudayeva). 2. Iz
Kazanskogo instituta usovershenstvovaniya vrachey imeni
Lenina (for Nabyev). 3. Iz Leningradskogo kozhnogo dispansera
No. 1 (for Chistovich, Rivlin). 4. Iz Rostovskoy oblastnoy
sanitarno-epidemiologicheskoy stantsii (for Semenov). 5. Iz
Stavropol'skogo instituta vaktsin i syvorotok (for Kruglikov,
Shal'neva, Titrova, Raykis). 6. Iz Kuybyshevskogo instituta
epidemiologii, mikrobiologii i gigiyeny i Tsentral'nogo insti-
tuta usovershenstvovaniya vrachey (for Milyayeva). 7. Iz
Vsesoyuznogo nauchno-issledovatel'skogo instituta zhelezn-
dorozhnoy gigiyeny Glavnogo sanitarnogo upravleniya Minis-
terstva putey soobshcheniya i Detskoy polikliniki st. Lyublino

(Continued-on-next-card)

SPIVAK, M.Ya.; ARGUDYAYEVA, N.A.; KONOSHENKO, M.F.

Antimicrobial properties of phytoncidin, a medicinal garlic preparation. Antibiotiki 8 no.9:832-833 S '63.

(MIRA 17:11)

1. Kafedra gosptal'noy terapii (zav. A.A. Korolenko) Kemerovskogo meditsinskogo instituta, 3-ya Kemerovskaya gorodskaya klinicheskaya bol'nitsa (glavnyy vrach Z.Ya. Fridman) i Kemerovskiy oblastnoy protivotuberkuleznyy dispanser (glavnyy vrach G.V. Popova).

ARGUN, B. G.

Out-of-town conference on plant protection. Zashch. rast. ot
vred. i bol. 5 no.10:62 0 '60. (MIRA 16:1)

1. Glavnyy agronom po sel'khoznauke Ministerstva sel'skogo
khozyaystva Abkhazskoy ASSR.

(Georgia—Plants, Protection of—Congresses)

ARGUN, M.M., otv. za vypusk; GORDEZIANI, S.A., tekhnred.

[Statute of standing committees of district, city, village, and settlement soviets of workers' deputies of the Abkhazian A.S.S.R.. Adapted by decree of the Presidium of the Supreme Soviet of the Abkhazian A.S.S.R., September 9, 1958] Polozhenie o postoiannykh komissiiakh raionnykh, gorodskikh, sel'skikh i poselkovykh Sovetov deputatov trudiashchikhsia Abkhazskoi ASSR. Utvershdeno Ukazom Prezidiuma Verkhovnogo Soveta Abkhazskoi ASSR ot 9 sentiabria 1958 g. Sukhumi, Abkhazskoe gos.izd-vo, 1958. 13 p. (MIRA 13:4)

1. Abkhazian A.S.S.R. Laws, statutes, etc.
(Abkhazia--Soviets)

Argunov, A.A.

135-58-4-4/19

AUTHORS: Chërnyy, G.V., Garnazhenko, I.O., and Argunov, A.A.

TITLE: The "USL-1" Device for the Welding of Mine-Car Bodies
(Ustanovka "USL-1" dlya svarki kazovov vagonetok)

PERIODICAL: Svarochnoye Proizvodstvo, 1958, Nr 4, pp 13-14 (USSR)

ABSTRACT: The article contains a detailed description, illustrated by schematic drawings, and a photograph of a new device, type "USL-1", for the assembly and automatic welding of mine-car side sheets. The device was designed at the Toretskiy mashinostroitel'nyy zavod (The Torets Machine-Building Plant) and can process 80 to 100 sheets with 200 m of total seam per shift. There are 2 figures and 1 photograph.

ASSOCIATION: Toretskiy mashinostroitel'nyy zavod (Torets Machine-Building Plant)

AVAILABLE: Library of Congress

Card 1/1

ARGENTY, G I

are special cases of the ternary operation with $x +^A y = x \cdot 10b$ and $xm = x \cdot m00$. In this paper the author finds in terms of the ternary operation the algebraic equivalents for various configuration theorems. For a given con-

figuration theorem, a set of three ternary equations $a \cdot (bc)xd = cab$ and is projectively equivalent to the theorem of Desargues. A large number of relations between configuration theorems is found, and a diagram at the end of

ARGUNOV, Boris Ivanovich; BALK, Mark Benevich; SIDOROVA, L.A., redaktor;
KAPUSTINA, V.S., redaktor; RYBIN, I.V., tekhnicheskiy redaktor

[Constructions in plane geometry; manual for students of pedagogical institutes] Geometricheskie postroeniia na ploskosti; posobie dlia studentov pedagogicheskikh institutov. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1955. 268 p.

(MIRA 9:3)

(Geometry, Plane)

ARGUNOV, Boris Ivanovich; SKORNYAKOV, Lev Anatol'yevich; LAPKO, A.F., red.;
AKHILAMOV, S.N., tekhn.red.

[Configuration theorems] Konfiguratsionnye teoremy. Moskva, Gos.
izd-vo tekhniko-teoret. lit-ry, 1957. 37 p. (Populiarnye lektsii po
matematike, no.24). (MIRA 11:2)
(Configurations)

ARGUNOV, Boris Ivanovich; BALK, Mark Benevich; OSTIANU, N.M., redaktor;
SMIRNOV, G.I., tekhnicheskiy redaktor

[Constructions in plane geometry; manual for students in pedagogical
institutes] Geometricheskie postroeniia na ploskosti dlia studentov
pedagogicheskikh institutov. Izd. 2-oe. Moskva, Gos.uchebno-pedagog.
izd-vo M-va prosv. RSFSR, 1957. 265 p. (MLRA 10:9)
(Geometry, Plane)

ARGUNOV, B.I.

Geometrical constructions by the use of rulers and compasses
of limited size. Uch. zap. Smol. gos. ped. inst. No.10:3-11
'62. (MIRA 17:1)

ARGUNOV, B. N.

"Configurational Postulates in Projection Planes and Their Algebraic Equivalents." Sub 29 Oct 47, Sci Res Inst of Mathematics, Moscow Order of Lenin State U imeni M. V. Lomonosov

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr 55

ARGUNOV, I.A., red.; VASIL'YEV, S.N., red.; KORYAKIN, P.I., red.; KROTOV,
M.A., red.; LUKONIN, G.A., red.; TOMSKIY, S.K., red.; CHERSKIY,
N.V., red.; CHIRYAYEV, G.O., red.; SOLOV'YEVA, Ye.P., tekhn.red.

[Forty years of the Yakut A.S.S.R.] 40 let Iakutskoi ASSR.
Iakutsk, Iakutskoe knizhnoe izd-vo, 1962. 189 p.

(MIRA 16:1)

(Yakutia--Economic conditions)

(Yakutia--Culture)

ARGUNOV, I.I.

VAYSMAN, Lazar' Solomonovich, kapitan 1 ranga; ARGUNOV, I.I., kapitan 1-go ranga; STREL'NIKOVA, M.A., tekhnicheskij redaktor

[Maneuvering board] Manevrennyi planshet. Moskva, Voen. izd-vo Ministerstva oborony SSSR, 1954. 107 p.
(Navigation) (MLRA 8:6)

VAKHTEL', V.Yu.; ARGUNOV, L.S.; BREYNMAN, F.A.

Mounting stresses in cylinder heads. Trakt. 1 sel'khoz mash.
no.5:6-8 My '64. (MIRA 17:6)

1. Gosudarstvennoye spetsial'noye konstruktorskoye byuro po
dvigatelyam.

VAKHTEL', V.Yu.; ARGUNOV, L.S.; GUBIN, M.Ya.

Tightening of important threaded joints of an engine. Mashino-
stroenie no.3:88-91 My-Je '64.

(MIRA 17:11)

ARGUNOV, M.

Visiting our Bulgarian friends. Metallurg 10 no.10:38-39 0 '65.
(MIRA 18:10)

1. Zamestitel' glavnogo inzhenera Kuznetskogo metallurgicheskogo
kombinata.

ARGUNOV, M.I.

BARDIN, I.P.; BORISOV, A.F.; BELAN, R.V.; YERMOLAYEV, G.I.; VAYSBERG, L.E.;
ZHEREBIN, B.N.; BORODULIN, A.I.; SHAROV, G.V.; DOMNITSKIY, I.F.; CHUSOV, F.P.
SOROKO, L.H.; KLIMASENKO, L.S.; PAVLOVSKIY, S.I.; ZIL'BERSHTEYN, M.B.;
LYULENKOV, I.S.; NIKULINSKIY, I.D.; BRAGINSKIY, I.A.; SALOV, Ye.M.;
TROSHIN, N.F.; PETRIKEYEV, V.I.; ARGUNOV, M.I.; DUL'NEV, F.S.; BIDULYA, L.N.
GAYMANOV, S.A.; FROLOV, N.P.; VINICHENKO, V.S.; KOGAN, Ye.A.

G.E. Kazarnovskii; obituary. Stal' 15 no.8:757 Ag'55. (MLRA 8:11)
(Kazarnovskii, Grigoriï Efimovich, 1887-1955)

ARGUNOV, M.S.; GAVRIKOV, S.I.

Balagan-Tas, the early Quaternary volcano. Izv. AN SSSR, Ser. geol.
25 no.8:90-93 Ag '60. (MIRA 13:8)

1. Verkhne-Indigirskoye geologorazvedochnoye upravleniye,
pos. Ust'-Nera, Yakutskoy ASSR.
(Balagan-Tas Volcano)

ARGUNOV, O.

The first woman in space. Kryl.rod. 14 no.7:8-10 J1 '63.
(MIRA 16:9)
(Tereshkova, Valentina Vladimirovna)

MIKOYAN, A., general-mayor aviatsii, voyenny letchik pervogo klassa;
VAZHIN, F., polkovnik; ARGUNOV, O., podpolkovnik

In Major Zakharov's group. Av. i kosm. 46 no.4:37-49
Ap '64. (MIRA 17:3)

ARGUNOV, P.

PA 164T75

USSR/Radio - Signal Generators
Test Equipment

Jun 50

"Portable Standard Signal Generator," P. Argunov

"Radio" No 6, pp 50-53

Describes construction, circuit (schematic diagram) and parts of improved model of prize-winning signal generator at the 7th All-Union Corr Radio Exhibition (dimensions 10 x 16 x 26 cm, weight 3 kg). Intended to aid radio amateurs to tune in and service radio apparatus and measure their parameters.

164T75

ARGUNOV, P. P.

"Method of Quick Determination of Mechanical Ground Characteristics in Construction Sites," Iz. AK. Nauk SSSR, Otdel, Tekh, Nauk, No. 3-4, 1943.

SO: MLRA

ARGUNOV, P.P.

Improvement in the laboratory technique for the determination of the
percolation coefficient of clayey soils. Trudy NII osn. i fund. no.11:
63-73 '48. (MLRA 7:11)
(Soil percolation)

ARGUNOV, P.P.

Artificial raising of ground water levels in loess-like soil
layers by infusing water into drilled wells. Trudy NII osn. i
fund. no.11:74-85 '48. (MLRA 7:11)
(Water, Underground)

ARGUNOV, Pavel Pavlovich, prof., doktor tekhn.nauk; MKHITARYAN, A.M.,
spets.red.; REZNICHENKO, I.Ye., red.; ROZHAVINA, A.L., red.;
YUNOVSKIY, Ye.B., tekhn.red.

[Hydroelectric power stations; principles of the utilization
of water power] Gidroelektrostantsii; osnovy ispol'zovaniia
vodnoi energii. Kiev, Gos.isd-vo lit-ry po stroit. i arkhit.
USSR, 1960. 452 p. (MIRA 13:10)
(Hydroelectric power stations)

ARGUNOV, P.P., prof.; STEPANOV, N.N., inzh.; GLADOVICH, G.U., inzh.

Turbine block with ejection from a conical suction pipe with an internal cone insert. Izv. vys. ucheb. zav.; energ. 3 no.11:100-104 N '60. (MIRA 13:12)

1. Odesskiy inzhenerno-stroitel'nyy institut. Predstavlena kafedroy ispol'zovaniya vodnoy energii.
(Hydroelectric power stations)

L 52168-65 EWT(1)/EWG(v) Pe-5/Pae-2 GW

ACCESSION NR: AT5013228

UR/2556/65/000/036/0066/0073

AUTHOR: Argunov, P. P. (Odessa)

TITLE: Catadioptric telescope with mirror-lens correction

SOURCE: Vsesoyuznoye astronomo-geodezicheskoye obshchestvo. Byulleten', no. 36, 1965, 66-73

TOPIC TAGS: catadioptric telescope, telescope speed, cardmatic aberration

ABSTRACT: Combinations of mirror and lens optical elements in telescope design should result, in principle, in an instrument with greater speed and better chromatic aberration correction than is the case with refractors and reflectors. However, the basic drawback of such instruments (Schmidt-Van Dorp) is the presence of a central obscuration which reduces the light-gathering power of the instrument. In order to overcome this deficiency, the present author has worked with a variety of systems to correct the visible light. In order to obtain the best possible combinations of mirror and lens elements, the present author designed an instrument, shown working principle in Fig. 1 of the Enclosure which is free of the above-mentioned deficiencies. The essential feature is the location of the correcting element in the converging portion of the beam. A similar

Card 1/3

L 52168-65

ACCESSION NR: AT5013228

3

system was proposed earlier by G. G. Slyusarev (A. I. Tudorovskiy, Teoriya opticheskikh priborov, v. 2, Sostekhzdat, 1952, p. 361), but its construction was much more complicated. Detailed design calculations of the new device will be published in a separate paper. Here, the author presents a detailed description of the construction and operation of the first such instrument with a mirror 225 mm in diameter. The author notes in conclusion that a second such instrument with a 425-mm mirror has been constructed by Prof. G. P. Isesevich at the Vavaki Branch of the Odesskaya astronomicheskaya observatoriya (Odessa Astronomical Observatory). Orig. art. has: 5 figures.

ASSOCIATION: Odesskoye otdeleniye VAGO (Odessa Section, VAGO)

SUBMITTED: 00

ENCL: 01

SUB CODE: OP, AA

NO REF SOV: 002

OTHER: 000

ATD PRESS: 4018

Card 2/3

A. 063678 H.S. A. 063679

2017-2018

Fig. 1. The principle of the new optical telescope

- 1 - Main spherical mirror; 2 - unglued lens;
3 - lens with mirror on its back surface;
4 - eyepiece.

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Card 3/3